

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-28 are pending in the present application. Claims 1-28 have been amended.

In the outstanding Office Action, the specification was objected for informalities; Claim 8 was objected to for informalities; Claim 10 was rejected under 35 U.S.C. § 112; Claims 16-28 were rejected under 35 U.S.C. § 101; Claims 1, 9, 11-17, 22 and 23 were rejected under 35 U.S.C. § 103(a) as unpatentable over Coad et al. (U.S. Patent No. 6,851,107, herein “Coad”) in view of Pennel (U.S. Patent No. 6,598,181); Claims 2-8, 18-21 and 24-28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Coad in view of Pennel and Broughton et al. (U.S. Publication No. 2003/0188299, herein “Broughton”); and Claim 10 was rejected under 35 U.S.C. § 103(a) as unpatentable over Coad in view of Pennel and “OMG Unified Modeling Language Specification Version 1.3” (herein “OMG”).

Regarding the objection to the specification, the specification and Claim 12 have been modified in light of the comments noted in the outstanding Office Action. Accordingly, it is respectfully requested this objection be withdrawn.

Regarding the objection to Claim 8, this claim has been modified in light of the comments noted in the outstanding Office Action. Accordingly, it is respectfully requested this objection be withdrawn.

Regarding the rejection to Claim 10 under 35 U.S.C. § 112, this claim has been modified in light of the comments noted in the outstanding Office Action. Specifically, Claim 10 has been amended to depend from Claim 9 instead of Claim 1. Accordingly, it is respectfully requested this rejection be withdrawn.

Regarding the rejection to Claims 16-28 were rejected under 35 U.S.C. § 101, Claims 16 and 22 have been modified in light of the comments noted in the outstanding Office Action. Accordingly, it is respectfully requested this rejection be withdrawn.

Claims 1, 9, 11-17, 22 and 23 were rejected under 35 U.S.C. § 103(a) as unpatentable over Coad in view of Pennel. That rejection is respectfully traversed.

Amended independent Claim 1 is directed to a process for providing a representation of specified includes a plurality of object classes and further includes object related methods belonging to respective object classes. The process includes sensing at least one complex method call by examining the source code of the software program, a plurality of the methods being associated with each of the at least one complex method call, extracting at least one single method call included in the at least one complex method call from each of the at least one complex method call, generating a set of information for each of the methods from the at least one single method call, and constructing a representation of interactions between objects of the software program from the information contained in the method information sets. The information set for a particular method contains at least a name of the particular method and the object class to which the particular method belongs. The extracting includes recursively replacing the at least one single method call with a phase variable.

Similarly, independent Claim 16 includes first instructions for extracting a plurality of individual method calls from each of at least one complex method call by examining the source code of a software program. The first instructions comprise recursively replacing each of the single methods with a phase variable.

Similarly, independent Claim 22 includes Method Detail Parser means for extracting a plurality of single method calls from each of at least one complex method call. The Method Detail Parser means comprises recursively replacing associated methods with a phase variable.

In a non-limiting example, Figure 3 illustrates extracting a single method call from a complex method call (see also paragraphs 42 and 43). As shown in Figure 3 and explained in paragraphs 42 and 43, complex arguments, such as a function call to an object, are isolated and replaced with simple arguments. Phase variable represent the arguments that are isolated.

Coad relates to a graphical user interface which allows a developer to simultaneously view a graphical and a textual display of source code. The graphical and textual views are

synchronized so that a modification one view is automatically reflect in the other view (col. 2, lines 46-51; col. 4, lines 38-45). Coad does not teach or suggest extracting at least one single method call from each of at least one complex method call where the extracting includes recursively replacing the at least one single method call with a phase variable. In fact, Coad does not even mention phase variables. Applicant respectfully submits that Coad does not even suggest a component of a complex assignment statement with a phase variable. Instead, Coad merely discloses checking for the occurrence of multiple assignments (see Fig. 8B). It does not teach or suggest *replacing* these multiple assignments with a phase variable. Applicant further submits that Coad does not teach or suggest recursive replacement.

Pennel relates to a method of debugging multiple function calls by examining object code (see Abstract; col. 2, lines 52-56; col. 5, lines 1-40). Pennel does not teach or suggest examining source code. Further, although Pennel does disclose analyzing function calls by a program's object code (see col. 2, line 65 to col. 3, line 5), it does not disclose replacement of components of a complex method call nor recursively replacing at least one single method call included in a complex method call with a phase variable.

As stated in M.P.E.P. §2143, a basic requirement for a *prima facie* case of obviousness is that the prior art reference (or references when combined) must teach or suggest all the claim limitations. As the cited references do not teach or suggest the feature of recursively replacing at least one single method call included in a complex method call with a phase variable, it is respectfully submitted the outstanding Office Action has not created a *prima facie* case of obviousness with regard to independent Claims 1, 16 and 22, and the claims dependent therefrom.

Accordingly, it is respectfully requested this rejection be withdrawn.

Addressing each of the further rejections, each of the further rejections is also traversed by the present response as no teachings in any of the further cited references to Broughton and OMG can overcome the above-noted deficiencies of Coad and Pennel. In particular, Broughton and OMG do not teach or suggest recursively replacing at least one single method call included in a complex method call with a phase variable. Accordingly, it is respectfully requested that

those rejections be withdrawn for similar reasons as discussed above.

CONCLUSION

In light of the arguments set forth above, Applicants respectfully submit that the Application is now in allowable form. Accordingly, Applicants respectfully request consideration and allowance of the currently pending claims.

It is believed that no additional fees are due at this time. If this is incorrect, Applicants hereby authorize the Commissioner to charge any fees, other than issue fees, that may be required by this paper to Deposit Account No. 07-0153. The Examiner is respectfully requested to call Applicants' Attorney for any reason that would advance the current application to issue. Please reference Attorney Docket No. 124263-1013.

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